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BULLETIN NO. 268

Commercial Feeding Stuffs in Kentucky in 1925.

By J. D. TURNER, H. D. SPEARS, W. G. TERRELL and P. H. SENN.*

Kentucky feeders used about thirty thousand tons less of commercial stock feeds in 1925 than they did in 1924. This is due to several causes: First, to the high cost of commercial feeds, which caused the feeder to turn more to home-grown materials such as hay, grain and straw. Second, to the poor results obtained from feeding low-grade commercial feeds, which caused the feeder to feed less of these and more of home-grown materials. Third, to the replacing of the horse and mule by the automobile and truck in many sections of the State. Fourth, to the decrease in the numbers of some classes of stock animals in the State. Fifth, to a tendency on the part of many feeders to grow more feed materials on their own farm and buy only the materials necessary to supplement their home-grown products.

The relationship between the manufacturer and feeder is not as cordial as it should be. Information received by the Department from feeders over the State is to the effect that there is quite a feeling of distrust. This seems to be due mainly to the manufacturer who sends out his agents over the State and makes all sorts of claims for his products when selling in competition with others, whether the products have merit or not. The feeder, in seeking a feed at a low cost, often buys these low-grade products and in due time is disappointed in the results. The manufacturer who practices this does not seem to realize that he is making a mistake to foist such products on the market and the feeder likewise suf-

*Resigned October 1, 1925.

fers thru lack of knowledge of his needs and thru such misrepresentation. Consequently, the honest manufacturer and feeder are separated by the trickster in the business who is causing the distrust among the feeders and preventing what should be a helpful, cooperative relationship between the manufacturer and feeder.

Even under these conditions, the importance of the manufacture and distribution of special-purpose mixed feeds, or proprietary mixtures and materials that are used to supplement home-grown products or home-mixed rations, is yearly increasing. This is due primarily to the greater knowledge of the feed values of materials and the varied requirements of livestock.

The commercial feeds sold in Kentucky during the year are grouped according to class, with tonnage computed from license tags issued:

		Tons
Horse and Mule Feed		21,000
Dairy Feed:		
16½% Protein	14,350	
20% Protein	5,525	
24% Protein	11,490	
		31,365
Scratch Grains		23,150
Chick Grains		6,000
Laying Mash		4,700
Growing Mash		3,290
Fattening Mash		1,425
Hog Feed		1,250
Calf Meal		75
Sheep Feed		50
General Stock Feed		5,395
Wheat Bran		8,920
Wheat Middlings or Shorts		17,450
Mixed Wheat Feed		25,450
Red Dog Flour		200
Miscellaneous Wheat Feed		6,765
Mixed Feed (Wheat and Corn By-Products)		31,025

		Tons
Cottonseed Meal:		
43% Protein	1,850	
41% Protein	10,875	
36% Protein	200	
		12,925
Linseed Oil Meal		750
Hominy Feed		3,750
Cracked Corn, Corn Chop, etc.		15,325
Corn Feed Meal		1,700
Tankage		1,950
Meat Meal		700
Dried Buttermilk, Semi-Solid Buttermilk		450
Ground Oats		975
Corn Bran		125
Oat By-Products		475
Brewers' Dried Grains		300
Crushed Ear-Corn		425
Miscellaneous		275

HORSE FEED.

A total of 21,000 tons of horse and mule feed were sold in the State during 1925, or 5,595 tons less than in 1924. Of this amount, 3,030 tons contained a material or ingredient of little or no feeding value, such as fillers, waste, refuse, hulls, etc.; or 14% of the total horse and mule feed sold, contained such materials.

Of the 62 official samples of horse and mule feed analyzed, 44 equaled guaranty, 18 fell below guaranty in protein, 3 in fat, 13 above in fiber, 1 was adulterated and 7 were misbranded.

DAIRY FEED

For the year, 31,365 tons of dairy feed were sold in the State, or 6,740 tons less than in 1924. Of this amount, 11,375 tons contained a material of little or no feeding value, such as waste by-products, hulls, screenings refuse, etc.; or 36% of the total dairy feed contained such materials. Most of this cheap and low-grade material was used in the 16½% grade of dairy feed. The 20% and 24% dairy feeds were in most part made up of high-grade materials.

A total of 144 official samples of dairy feed were analyzed for the period; 112 equaled guaranty; 32 fell below guaranty in protein; 12 fell below in fat; 21 ran above in fiber; 11 were adulterated; 25 were misbranded. The deficient and adulterated samples were of the cheaper grade of dairy feed.

POULTRY GRAINS

A total of 29,150 tons of poultry grains were sold in the State, or 2,920 tons less than in 1924. Of this amount, 988 tons contained a material of little or no feeding value, such as grit and inferior grain, or a little over 4% of the total poultry grains contained such material.

Of the 63 official samples of scratch grains analyzed, 12 fell below guaranty in protein, 4 fell below in fat, and 41 were misbranded as to the ingredients guaranteed.

Of the 6 official samples of chick feed analyzed, 1 fell below guaranty in protein, and 2 were misbranded as to the ingredients guaranteed.

POULTRY MASH.

9,415 tons of poultry mash were sold, or 1,495 tons less than in 1924. Of this amount, 690 tons contained a material of little or no feeding value, or 7% of the total contained a material of little or no feeding value.

Of the 45 official samples analyzed, 7 fell below guaranty in protein, 1 in fat, 6 ran above in fiber, and 7 were misbranded.

HOG FEED.

1,250 tons of hog feed were sold, which was an increase over 1924. Of this amount, 150 tons contained a low-grade material, or 12% of the total.

Of the 6 official samples analyzed, 1 fell below guaranty in protein, 3 ran above in fiber, and 4 were misbranded.

GENERAL STOCK FEED.

A total of 5,395 tons of general stock feed were sold in the State, which was slightly less than the amount used in

1924. Of this amount, 3,050 tons contained materials of low value, or about 60% of the total.

25 official samples were analyzed; 4 fell below guaranty in protein; 1 in fat; 5 were above in fiber; 1 adulterated; 5 misbranded.

CALF MEAL.

Only a small tonnage, 75 tons, of calf meal was sold in the State. None was adulterated and samples equaled guaranty.

SHEEP FEED.

A very small amount of sheep feed was sold in the State; samples equaled guaranty.

WHEAT BRAN.

A total of 8,920 tons of wheat bran were sold in the State, or 840 tons less than in 1924; 12 official samples were analyzed; 3 fell below guaranty in protein; 1 in fat; 1 above in fiber; 2 adulterated.

WHEAT MIDDLINGS AND SHORTS.

17,450 tons were sold in the State, or 4,230 tons less than in 1924. 51 official samples were analyzed; 13 fell below guaranty in protein; 7 in fat; 10 ran above in fiber; 8 were adulterated; 4 misbranded.

MIXED WHEAT FEED.

25,450 tons were sold in the State, or 3,120 tons less than in 1924. 28 official samples were analyzed; 9 fell below guaranty in protein; 3 in fat; 5 ran above in fiber; 4 were adulterated.

MISCELLANEOUS WHEAT FEED.

This is a class of feed that could not meet the standards of established grades of wheat feed in Kentucky, due to the milling process used, or use of inferior grain, or addition of screenings, etc. 6,765 tons of this class of feed were sold, or slightly less than in 1924. 32 official samples were analyzed;

8 fell below guaranty in protein; 2 in fat; 1 ran above in fiber; 5 were adulterated; 6 were misbranded.

RED DOG FLOUR.

Only a small amount of red dog flour was sold in the State; this product equaled guaranty.

COTTONSEED MEAL.

Three grades of cottonseed meal were sold in the State, 43%, 41% and 36% protein. 1,850 tons of the 43% product were sold, 10,875 tons of the 41% product and 200 tons of the 36% product, making a total of 12,925 tons, or 800 tons less than in 1924.

46 official samples were analyzed; 19 fell below guaranty in protein; 1 in fat; 16 ran above in fiber; 1 was adulterated.

LINSEED OIL MEAL.

750 tons of linseed oil meal were sold in the State, or 505 tons less than in 1924. 2 official samples were analyzed and equaled guaranty.

HOMINY FEED OR MEAL.

3,750 tons were sold, or 1,970 tons less than in 1924. 4 official samples were analyzed; 3 fell below guaranty in protein; 1 in fat; 1 misbranded.

CRACKED CORN, CORN CHOP, ETC.

15,325 tons of this product were sold in the State, or 7,190 tons less than in 1924. 8 official samples were analyzed; 4 fell below guaranty in protein; 4 in fat; 3 misbranded.

CORN FEED MEAL.

1,700 tons of this product were sold in the State for the period of this bulletin, or 688 tons less than in 1924. 3 official samples were analyzed; 1 fell below guaranty in protein; 1 in fat.

TANKAGE.

1,950 tons of tankage (mostly 60% grade) were sold, which was slightly more than the consumption in 1924. 8 official samples were analyzed; 1 fell below guaranty in protein; 1 in fat.

MEAT MEAL.

700 tons were sold, which was less than in 1924. 3 official samples were analyzed; all equaled guaranty.

MIXED FEED (WHEAT AND CORN BY-PRODUCTS)

This is a product made up mostly of wheat bran, wheat middlings, corn bran and a small amount of wheat screenings. The corn bran varies from a few to as much as 10 to 15% in the mixture. The percentage of screenings will average between 3 and 5.

31,025 tons of this product were sold in the State for 1925, or 7,495 tons less than in 1924. 56 official samples were analyzed; 16 fell below guaranty in protein; 4 in fat; 5 were above in fiber; 5 misbranded.

MISCELLANEOUS.

This covers a group of feeds not extensively used, such as rice bran, shredded wheat waste, beet pulp, alfalfa meal, barley by-product feeds, ground rye, etc.

15 official samples of these miscellaneous feeds were analyzed; 1 fell below guaranty in protein; 1 too high in fiber; 2 were misbranded.

PURPOSE OF THE LAW.

The purpose of the feed law is fourfold: First, to require all feeding stuffs sold or offered for sale in Kentucky to be tagged with a Kentucky tag stating the manufacturer's guaranty; second, to protect the feeder against inferior and adulterated feeds and short weights; third, to protect the honest manufacturer and dealer against dishonest competition; fourth, to promote a more economical and intelligent use of commercial feeding stuffs, whether used as a prepared ration or as supplements to home-grown materials.

ADVICE TO PURCHASERS.

There are mixed feeds and straight by-products that are of such low quality they do not meet the standards of Kentucky. Such feeds are not registered in Kentucky and do not admit of registration. These feeds are sold to jobbers and they, in turn, sell them to whomsoever they can without registering or labeling them. Kentucky jobbers sometimes buy these feeds and then learn when it is too late that the feeds are inferior products and cannot be registered.

No dealer or jobber or purchaser should buy any feed, from any source, that is not registered or does not admit of registration. If feeds are not up to standard and cannot be registered they should be refused. The purchaser should ascertain this information before he makes his order.

GRAIN SCREENINGS.

There is no grade or standard for screenings. They vary widely in both chemical and physical composition. More fraud is practised thru the use of screenings than in any other way. The so-called "grain screenings" used in stock feeds are usually "screenings refuse," or what is left after all the grains, sound, broken and shrivelled, have been removed by several processes of separation at grain elevators. The wheat grains are taken out and sold for poultry feeds, the oats as "mill oats," barley for other purposes, wild mustard to crushers for its oil content, and the "screenings refuse," or what is left after all grains of value are taken out, is sold for "grain screenings" for use in stock feeds. This resultant by-product, or "screenings refuse," is made up mostly of weed seeds, chaff, sweepings and other waste. The main objection to the use of screenings is the illegal manner in which they are used.

SYSTEM OF TAGGING.

In addition to the information printed on the State tag, the Department uses a color scheme of three colors, black, red and yellow. This is done in order to classify the feeds according to their general make-up and help the buyer to recognize

by a glance at the tag the general character of the feed. This, in connection with the information printed on the tag, should serve as a guide to the purchaser and give reasonable warning and an opportunity to make whatever investigation he desires before he accepts the feeds. The color system is:

First, a manila tag printed in black ink represents a feeding stuff made of the products or by-products of one grain or plant only, such as wheat, or corn, or cotton seed, etc. For example, wheat shorts, mixed wheat feed, wheat bran, cottonseed meal or corn feed meal would bear manila tags printed with black ink. Such feeds are commonly known as "straight" feeds.

Second, a manila tag printed in red ink indicates that the feeding stuff is made of the products or by-products of two or more grains or plants, such as corn and wheat, or corn, wheat and cottonseed meal, etc. For example, a combination of corn feed meal, wheat bran, alfalfa meal, molasses and cottonseed meal would take a manila tag printed with red ink.

Third, a yellow tag printed in black ink indicates that a feeding stuff contains a material of little or no feeding value, or a material not classified as a concentrate, such as oat hulls, corn cob meal, peanut hulls, cottonseed hulls, flax-plant refuse, clipped oat by-product, peat, grain screenings, etc.

OFFICIAL TAG.

Feeders should not accept any feed unless it bears the Kentucky tax tag. This tag should be examined carefully. Buy only on the guaranty the tag carries, as this is the official guaranty to the State and purchaser. Claims of salesmen and statements made in advertising matter that are not in accord with the official guaranty should be disregarded.

HOW TO BUY FEEDS.

Dealers should buy only from manufacturers who have a good record and are complying with the feed law by having their feeds properly registered and tagged with a Kentucky tag, and will assist them in complying with the law. If a

dealer wishes to buy feeds and register them under his own name, he should ascertain first if the feeds he wishes to handle are registered in Kentucky, and if not, if they will admit of registration. This information should be known to him before he buys the feeds and assumes responsibility for them.

Feeders should buy only from reputable concerns, concerns that have good records and are complying with the law by having every bag of feed properly labeled. If the feed is not labeled, the buyer should refuse it and buy his feeds from concerns that are complying with the requirements of the law by having the Kentucky tag attached. This tag contains the manufacturer's guaranty to him and the State and if the feed is adulterated or misbranded, the manufacturer will be liable under the law.

COOPERATION WITH DEPARTMENT.

In case of irregularities in shipments of feeds, made by manufacturers to dealers or agents or by dealers or agents to feeders, to the effect that the goods are not as represented, or are not properly labeled, or are misbranded, or are short in weight, or otherwise illegally sold, the purchaser of such feeds should promptly notify the Department, stating the facts as nearly as possible, and an investigation will be made and such action will be taken as the case merits.

STANDARDS AND REQUIREMENTS.

Section 13 of the Kentucky Feed Law gives the Director of the Experiment Station power to make and adopt standards for feeding stuffs and to make and enforce rules and regulations necessary to keep feeds up to reasonable standards. Section 14 empowers the Director to refuse the registration of feeds not of proper standards or under names which would be misleading as to the materials of which they are made. Accordingly, the Department has adopted standards from time to time for the benefit of both the manufacturer and feeder. The standards now in effect are:

1. Chemical Standards:	Minimum Protein	Minimum Fat	Maximum Fiber
Mixed Wheat Feed	15.50%	4.00%	8.50%
Wheat Bran	14.50%	3.75%	10.00%
Brown Wheat Middlings or Shorts	16.00%	4.00%	7.50%
Gray Wheat Middlings or Shorts	16.00%	4.00%	6.00%
White Wheat Middlings or Shorts / Flour Middlings	16.00%	3.75%	4.00%
Red Dog Flour	15.00%	3.00%	3.50%
Corn Feed Meal	8.00%	3.75%	5.00%
Cracked Corn	8.00%	3.50%	3.00%
Hominy Meal, Hominy Feed or Hominy Chop	10.00%	7.00%	6.00%
Dairy Feed	15.00%	3.00%	16.00%
Horse and Mule Feed	9.00%	2.00%	15.00%
Hog Feed	14.00%	3.50%	7.00%
Laying Mash	18.00%	3.50%	7.00%
Alfalfa Meal	.....	.....	32.00%
Rye Middlings	.....	.....	6.00%
Ground Barley	.....	.....	6.50%
Ground Oats	.....	.....	12.00%
Scratch Feed	.....	.....	5.00%

2. **Registrations:**

(a) In making registrations, care should be exercised that the chemical guaranties will be reasonably close to the actual content of the feed. In other words, arbitrary guaranties will not be accepted.

(b) If a material change is made in the guaranty of a feed, in effect lowering the value of the feed, the name of the feed must be changed also.

(c) For oil mill by-products and digester tankages, the percentage of protein must form part of the name. For example, 41% Cotton seed Meal, 34% Old Process Linseed Oil Meal, 60% Digester Tankage, etc.

(d) Oil mill by-products containing hulls, screenings and similar materials, thus materially lowering the percentage of crude protein, cannot be called meals, but may be called meal and hulls, or meal and screenings, or feed, or by some proprietary name.

3. **Essential Organic Ingredients:**

A feeding stuff must not contain less than 3% of any essential organic food ingredient listed in the guaranty. If an ingredient

so listed is found to be less than 3%, the feed will be classed as misbranded.

4 **Mineral Ingredients:**
Mineral ingredients, generally regarded as dietary factors essential for the normal nutrition of animals, when added to a ration, must not exceed 3%.

5. **Grit and Shell:**
The maximum amount of grit and shell, or of either, if only one is present, must not exceed 3%.

6. **Salt:**
The amount of salt in cattle and horse feeds should not exceed 1%; in hog feeds ¾%; in baby chick feed ½%; in other poultry feeds 1%.

7. **Screenings:**
(a) Percentage of screenings in wheat feeds and statement whether ground or unground, must be given.
(b) In stock feeds the percentage of screenings and a statement whether ground or unground, is required and the percentage of weed seeds they contain must be given also. If the screenings have been "reworked" or "reconditioned," they must be called **screenings refuse.**

8. **Materials of Little or No Feeding Value:**
Percentage of material of little or no feeding value must be stated.

DEFINITIONS.

The Association of Feed Control Officials has formulated definitions in most part for feed terms in general use. These definitions are followed as closely as possible where conditions in Kentucky will permit. They are published here for the general information they contain.

Alfalfa meal is the entire alfalfa hay ground and does not contain an admixture of ground alfalfa straw or other foreign materials.

ANIMAL PRODUCTS.

Blood Meal is ground dried blood.

Cracklings are the residue after partially extracting the fats and oils from the animal tissues. If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

Digester Tankage is the residue from animal tissues, exclusive of hoof and horn, specially prepared for feeding purposes by tanking under live steam, drying under high heat, and suitable grinding, and contains less than 10 per cent. phosphoric acid (P_2O_5).

Digester Meat and Bone Tankage is the residue from animal tissues, exclusive of hoof and horn, specially prepared for feeding purposes by tanking under live steam, drying under high heat, and suitable grinding, and contains more than 10 per cent. phosphoric acid (P_2O_5).

Meat Scrap and Meat Meal are the ground residues from animal tissues, exclusive of hoof and horn, and contains less than 10 per cent. phosphoric acid (P_2O_5). If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

Meat and Bone Scrap and Meat and Bone Meal are the ground residues from animal tissues, exclusive of hoof and horn, and contains more than 10 per cent. phosphoric acid (P_2O_5). If they bear a name descriptive of their kind, composition or origin, they must correspond thereto.

BARLEY PRODUCTS.

Barley Hulls are the outer coverings of the barley.

Barley Feed is the entire by-product resulting from the manufacture of pearl barley from clean barley.

Barley Mixed Feed is the entire offal from the milling of barley flour from clean barley and is composed of barley hulls and barley middlings.

Ground Barley is the entire product obtained by grinding clean sound barley, containing not less than 90 per cent. pure barley and not more than 10 per cent. of other grains, weed seeds and other foreign material and not more than 6 per cent. fiber. Provided that no portion of this stated 10 per cent. of other grains, weed seeds or other foreign materials shall be deliberately added.

Mixed Feed Barley is the entire product obtained by grinding country run barley containing not less than 75 per cent. pure barley and not more than 25 per cent. of other grains, weed seeds and other foreign material. Provided that no portion of this stated 25 per cent. of other grains, weed seeds or foreign material shall be deliberately added. The ingredients must be stated as barley, other grains, weed seeds and other foreign materials.

BREWERS' AND DISTILLERS' PRODUCTS.

Brewers' Dried Grains are the properly dried residue from cereals obtained in the manufacture of beer.

Distillers' Dried Grains are the dried residue from cereals obtained in the manufacture of alcohol and distilled liquors. The product shall bear the designation indicating the cereal predominating.

Distillers' Corn Solubles, a by-product from the manufacture of alcohol from corn, is a mash liquor concentrated after the removal of the alcohol and wet grains.

Distillers' Corn and Rye Solubles, a by-product from the manufacture of alcohol from corn and rye, is a mash liquor concentrated after the removal of the alcohol and wet grains.

Distillers' Rye Solubles, a by-product from the manufacture of alcohol from rye, is a mash liquor concentrated after the removal of the alcohol and wet grains.

Malt Sprouts are the sprouts of the barley grain obtained in the malting process. Sprouts derived from any other malted cereal must be designated by the name of that cereal.

BUCKWHEAT PRODUCTS.

Buckwheat Shorts or Buckwheat Middlings are that portion of the buckwheat grain immediately inside of the hull after separation from the flour.

CORN PRODUCTS.

Corn Bran is the outer coating of the corn kernel.

Corn Feed Meal is the by-product obtained in the manufacture of cracked corn, with or without aspiration products added to the siftings. This name is also correctly applied to the by-product obtained in the manufacture of table meal from the whole grain by the non-degerminating process.

Corn Germ Cake is the product obtained in the manufacture of starch, glucose and other corn products and consists of the germ from which part of the corn oil has been extracted.

Corn Germ Meal is ground corn germ cake.

Grits are the hard, flinty portions of Indian corn containing no bran or germ.

Corn Gluten Meal is that part of commercial shelled corn that remains after the separation of the larger part of the starch, the germ and the bran, by the process employed in the manufacture of cornstarch and glucose. It may or may not contain corn solubles.

Corn Gluten Feed is that portion of commercial shelled corn that remains after the separation of the larger part of the starch and the germs by the processes employed in the manufacture of cornstarch and glucose. It may or may not contain corn solubles.

Maltose Process Corn Gluten Feed is the dried residue from degermed corn, after removal of starch in the manufacture of malt syrup.

Hominy Feed, Hominy Meal or Hominy Chop is the kiln-dried mixture of the mill run bran coating, the mill run germ, with or without a partial extraction of the oil and a part of the starchy portion of the white corn kernel obtained in the manufacture of hominy, hominy grits and corn meal by the degerminating process.

Yellow Hominy Feed, Yellow Hominy Meal or Yellow Hominy Chop is a kiln-dried mixture of the mill-run bran coating, the mill-run germ, with or without a partial extraction of the oil and a part of the starchy portion of the yellow corn kernel obtained in the manufacture of yellow hominy grits and yellow corn meal by the degerminating process.

Corn Oil Cake consists of the corn germ from which part of the oil has been pressed and is the product obtained in the wet milling process of manufacture of corn starch, corn syrup and other corn products.

Corn Oil Meal is ground corn oil cake.

Corn Germ Cake consists of corn germ with other parts of the corn kernel from which part of the oil has been pressed, and is the product obtained in the dry milling process of manufacture of corn meal, corn grits, hominy feed, and other corn products.

Corn Germ Meal is ground corn germ cake.

OIL CAKE.

Oil Cake is the product obtained after the extraction of part of the oil by crushing, cooking and hydraulic pressure or by crushing, heating and the use of solvents from seeds which have been screened and cleaned of weed seeds and other foreign materials by the most improved commercial processes. When used alone the term "Oil Cake" shall be understood to designate linseed cake as defined. When used to cover any other product the name of the seed from which it is obtained shall be prefixed to the words "Oil Cake."

Oil Meal or Ground Oil Cake is oil cake ground to a meal.

COTTONSEED PRODUCTS.

Cottonseed Meal is a product of the cottonseed only, composed principally of the kernel with such portion of the hull as is necessary in the manufacture of oil, provided that nothing shall be recognized as cottonseed meal that does not conform to the foregoing definition and that does not contain at least 36% of protein. Cottonseed meal shall be graded and classed as follows:

1.—Cottonseed Meal, Prime Quality. Cottonseed meal, prime quality, must be finely ground, not necessarily bolted, of sweet odor, reasonably bright in color, yellowish, not brown or reddish, free from excessive lint, and shall contain not less than 36% of protein. It shall

be designated and sold according to its protein content. Cottonseed meal with 36% of protein shall be termed "36% Protein Cottonseed Meal, Prime Quality," and higher grades similarly designated (as "43% Protein Cottonseed Meal, Prime Quality"), etc.

2.—Cottonseed Meal. Off Quality. Cottonseed meal not fulfilling the above requirements as to color, odor and texture shall be graded "36% Protein Cottonseed Meal, Off Quality," and higher grades similarly designated.

Cottonseed Feed is a mixture of cottonseed meal and cottonseed hulls, containing less than 36 per cent. of protein.

Cold Pressed Cottonseed is the product obtained from the subjection of the whole undecorticated cottonseed to the cold pressure process for the extraction of oil and includes the entire cottonseed less the oil extracted.

Ground Cold Pressed Cottonseed is the product obtained by grinding cold pressed cottonseed.

LINSEED AND FLAX PRODUCTS.

Linseed Cake or Meal is oil cake or meal made from flaxseed, provided that the final product shall contain less than 6 per cent. of weed seeds and other foreign materials and, provided, further that no portion of the stated 6 per cent. of weed seeds and other foreign materials shall be deliberately added.

Old Process Oil Meal, Old Process Linseed Meal is oil meal as defined or linseed meal as defined produced by crushing, cooking and hydraulic pressure.

New Process Oil Meal, New Process Linseed Meal is oil meal as defined or linseed meal as defined produced by crushing, heating and the use of solvents.

Flax Plant By-Product is that portion of the flax plant remaining after the separation of the seed, the bast fiber and a portion of the shives, and consists of flax shives, flax pods, broken and immature flax seeds, and the cortical tissues of the stem.

Ground Flaxseed or Flaxseed Meal is the product obtained by grinding flaxseed which has been screened and cleaned of weed seeds and other foreign materials by the most improved commercial processes, provided that the final product shall contain less than four per cent. of weed seeds and other foreign materials, and provided further that no portion of the stated four per cent. of weed seeds and other foreign materials shall be deliberately added.

Unscreened Flaxseed Oil Feed Cake is the product obtained by extraction of part of the oil from unscreened flaxseed by crushing, cooking and hydraulic pressure, or by crushing, heating and the use of solvents. The ingredients shall be stated as partially extracted

flaxseed and foreign seeds (wheat, wild buckwheat, pigeon grass, wild mustard, etc.).

Ground Unscreened Flaxseed Oil Feed is the ground unscreened flaxseed oil feed cake.

Screenings Oil Feed is the ground product obtained after extraction of part of the oil by crushing, cooking and hydraulic pressure, or by crushing, heating and the use of solvents from the smaller imperfect grains, weed seeds and other foreign materials, having feeding value, separated in cleaning the grain. The name of the grain from which the screenings are separated shall be prefixed to "screenings oil feed."

OAT PRODUCTS.

Oat Groats are the kernels of the oat.

Oat Hulls are the outer coverings of the oat.

Oat Middlings are the floury portions of the oat groat obtained in the milling of rolled oats.

Oat Shorts are the covering of the oat grain lying immediately inside the hull, being a fuzzy material carrying with it considerable portions of the fine floury part of the groat obtained in the milling of rolled oats.

Clipped Oat By-Product is the by-product obtained in the manufacture of clipped oats. It may contain the light chaffy material broken from the end of the hulls, empty hulls, light, immature oats and dust. It must not contain an excessive amount of oat hulls.

PEANUT PRODUCTS.

Peanut Oil Cake is the residue after the extraction of part of the oil by pressure or solvents from peanut kernels.

Peanut Oil Meal is ground peanut oil cake.

Unhulled Peanut Oil Feed is the ground residue obtained after extraction of part of the oil from whole peanuts, and the ingredients shall be designated as **Peanut Meal and Hulls.**

RICE PRODUCTS.

Rice Bran is the pericarp or bran layer of the rice, with only such quantity of hull fragments as is unavoidable in the regular milling of rice.

Rice Hulls are the outer coverings of the rice.

Rice Polish is the finely powdered material obtained in polishing the kernel.

RYE PRODUCTS.

Rye Bran is the coarse outer covering of the rye kernel as separated from the cleaned and scoured rye.

Rye Feed, a by-product obtained in the usual process of the milling of rye flour from cleaned and scoured rye grain, consists principally of the mill run of the outer covering of the rye grain and the germ with small quantities of flour and aleurone.

Rye Red Dog, a by-product obtained in the usual process of the milling of rye flour, consists principally of aleurone with small quantities of flour and fine bran particles and shall not contain more than 3.5% of fiber.

Rye Low Grade Feed Flour consists principaly of dark rye flour and small quantities of aleurone and fine bran particles and shall not contain more than 1.5% crude fiber.

Rye Middlings consists of the rye feed and rye red dog combined in the proportions obtained in the usual process of milling rye flour.

Rye Flour Middlings consists of the rye feed, rye red dog and pure dark rye flour combined in the proportions obtained in the milling of rye flour and shall not contain more than 5% crude fiber.

VELVET BEAN PRODUCTS.

Velvet Bean Meal is ground velvet beans containing only an unavoidable trace of hulls or pods.

Ground Velvet Bean and Pod is the product derived by grinding velvet beans "in the pod." It contains no additional pods or other materials.

WHEAT PRODUCTS.

Wheat Bran is the coarse outer covering of the wheat kernel as separated from cleaned and scoured wheat in the usual process of commercial milling.

Hard or Spring Wheat Products.

Standard Middlings consists mostly of fine particles of bran, germ and very little of the fibrous offal obtained from the "tail of the mill." This product must be obtained in the usual commercial process of milling and shall not contain more than 9.5 per cent. crude fiber.

Flour Middlings shall consist of standard middlings and red dog flour combined in the proportions obtained in the usual process of milling and shall not contain more than 6.0 per cent. crude fiber.

Wheat Red Dog, a by-product obtained in the usual commercial process of flour milling, consists principally of aleurone with small quantities of flour and fine bran particles and shall not contain more than 4.0% crude fiber.

Wheat Low Grade Feed Flour, a by-product obtained in the usual commercial process of flour milling, consists principally of flour with

small quantities of aleurone and fine bran particles and shall not contain more than 1.5% crude fiber.

Wheat Bran and Standard Middlings consists of the two commodities as defined above, mixed in the proportions obtained in the usual process of commercial milling.

Soft or Winter Wheat Products.

Brown Shorts (Red Shorts) consists mostly of the fine particles of bran, germ and very little of the fibrous offal obtained from the "tail of the mill." This product must be obtained in the usual commercial process of milling and shall not contain more than 7.5% crude fiber.

Gray Shorts (Gray Middlings or Total Shorts) conists of the fine particles of the outer bran, the inner bran or bee-wing bran, the germ and the offal or fibrous materials obtained from the "tail of the mill." This product must be obtained in the usual process of commercial milling and shall not contain more than 6.0% crude fiber.

White Shorts or White Middlings consists of a small portion of the fine bran particles and the germ and a large portion of the fibrous offal obtained from the "tail of the mill." This product must be obtained in the usual process of flour-milling and shall not contain more than 3.5% crude fiber.

Wheat Mixed Feed (Mill Run Wheat Feed) consists of pure wheat bran and the gray or total shorts or flour middlings combined in the proportions obtained in the usual process of commercial millings. Hard Wheat Mixed Feed shall not contain more than 9.5% crude fiber. Soft Wheat Mixed Feed shall not contain more than 8.5% crude fiber.

Screenings consists of the smaller imperfect grains, weed seeds and other foreign materials, having feeding value, separated in cleaning the grain.

Scourings consists of such portions of the cuticle, brush, white caps, dust, smut and other materials as are separated from the grain in the usual commercial process of scouring.

(Note). If to any of the wheat or rye by-product feeds there should be added screenings or scourings—as above defined, either ground or unground, bolted or unbolted, such brand shall be so registered, labeled and sold as clearly to indicate this fact. The word "Screenings" or "Scourings" as the case may be, shall appear as a part of the name or brand and shall be printed in the same size and face of type as the remainder of the brand name. When the word "Screenings" appears it is not necessary to show also on the labeling the word "Scourings."

MISCELLANEOUS PRODUCTS.

Dried Beet Pulp is the dried residue from sugar beets which have been cleaned and freed from crowns, leaves and sand, and which have been extracted in the process of manufacturing sugar.

Dried Buttermilk Feed is the product resulting from the removal of water from clean, sound buttermilk derived from natural cream to which no foreign substances have been added, excepting such as are necessary and permitted in the manufacture of butter. It contains, all tolerances being allowed for, not more than eight per cent. (8.0%) of moisture and not more than thirteen per cent. (13.0%) of mineral matter (Ash).

Cocoanut Oil Meal or "Copra Oil Meal" is the ground residue from the extraction of part of the oil from the dried meat of the cocoanut.

Fish Meal is the clean, dried ground tissues of undecomposed fish, with or without the extraction of part of the oil.

Fish Residue Meal is the clean undecomposed residue from the manufacture of glue or other fishery products from non-oily fish.

Ivory Nut Meal is the ground waste material resulting from the manufacture of buttons and similar articles from the vegetable ivory nut.

Processed Garbage is composed of garbage collected sufficiently often so that harmful decomposition has not set in; screened, dried and separated from metal, crockery, glass and similar material. Its odor must not be suggestive of pronounced decomposition and it must contain less than 1% of glass in fine pieces, none of which shows knife-like or needle-like particles. Provided further that the maximum percentage of glass be stated on the label.

Palm Kernel Oil Meal is the ground residue from the extraction of part of the oil by pressure or solvents from the kernel of the fruit of Elaeis guineensis or Elaeis malanococca.

Yeast or Vinegar Dried Grains are the properly dried residue from the mixture of cereals, malt and malt sprouts (sometimes cottonseed meal) obtained in the manufacture of yeast or vinegar, and consists of corn or corn and rye from which most of the starch has been extracted, together with malt added during the manufacturing process to change the starch to sugars, and malt sprouts (sometimes cottonseed meal) added during the manufacturing process to aid in filtering the residue from the wort and serve as a source of food supply for the yeast.

TENTATIVE DEFINITIONS.

†Evaporated Buttermilk Feed, Concentrated Buttermilk Feed, Condensed Buttermilk Feed, is the product resulting from the removal of a considerable portion of water from clean, sound buttermilk derived

from natural cream to which no foreign substances have been added excepting such as are permitted and necessary in the manufacture of butter. It contains, all tolerances being allowed for, not less than thirty per cent. (30.0%) of total solids and not more than four per cent. (4.0%) of mineral matter (Ash).

†**Blood Meal** is ground dried blood.

†**Meat Meal** is ground dried residue, after partially extracting the fats and oils from animal tissues, exclusive of hoof, horn, manure, and stomach contents. It must not contain more than 10% phosphoric acid ($P_2 O_5$). This definition applies to both dry rendered and tanked products. When this name is used the list of ingredients on the bag or tag must contain the words "tankage" or "cracklings" or both, as the case may be. If this product contains more than 10% phosphoric acid ($P_2 O_5$) it shall be designated "Meat and Bone Meal."

†**Meat Scrap** is ground and screened Cracklings or Meat Meal. It shall not contain more than 10% of phosphoric acid ($P_2 O_5$). If the product contains more than 10% phosphoric acid ($P_2 O_5$) is shall be designated "Meat and Bone Scrap."

†**Cracklings** is the residue after partially extracting the fat and oils from animal tissues, exclusive of hoof, horn, manure and stomach contents, by an open kettle or by dry rendering process.

†**Digester Tankage** is the residue from Animal tissues, exclusive of hoof, horn, manure, and stomach contents, especially prepared for feeding purposes, by tanking under live steam, and by suitable drying and grinding. It shall not contain more than 10% of phosphoric acid ($P_2 O_5$). If this product contains more than 10% phosphoric acid ($P_2 O_5$) it shall be designated "Meat and Bone Digester Tankage."

PUBLICATIONS.

Bulletins have been issued from time to time giving information on the average composition of feeding stuffs, average digestibility of nutrients, analyses, provisions of the law and information of a general nature bearing on feeds. Copies of these bulletins may be had, as long as available, on application to the Experiment Station.

SUMMARY.

The names of the manufacturers whose feeds have been analyzed are given in alphabetical order in the following pages. The results are summarized without stating percentages found by analysis. If a brand of feed was found to be up to the

†Final action to be taken at next annual meeting.

standard guaranteed, or even exceeded it, the term "equaled guaranty" is used. In the same manner, if a feed is not up to the standard guaranteed, the results are summarized in statements like the following: "too low in protein," "too low in fat," "too high in fiber," "adulterated," "misbranded," "list of ingredients not as guaranteed," and other brief statements of facts.

Acme-Evans Co., Indianapolis, Ind. Inspection samples analyzed, 23.
- Acme Feed, 10; 6 equaled guaranty; 4 too low in protein.
- Producer Chop, 3; too low in protein and too high in fiber; contained excess of oat hulls.
- Acme Farm Feed, 2; 1 contained ground weed seeds.
- Producer Horse & Mule Feed, 2; equaled guaranty.
- Acme Middlings & Screenings, 2; too low in protein and 1 too low in fat.
- D-Light-U Horse & Mule Feed, 1; too high in fiber; low grade alfalfa meal used.
- Acme Horse & Mule Feed, 1; too high in fiber.
- D-Light-U Dairy Feed, 1; contained excess weed seeds.
- Acme Dairy Feed, 1; equaled guaranty.

The Acme Mills, Hopkinsville, Ky. Inspection samples analyzed, 3.
- Pure Wheat Shorts, 1; equaled guaranty.
- "Kentucky's Choice" Pure Wheat Mixed Feed & Screenings, 1; equaled guaranty.
- "Heavy Work" Horse & Mule Sweet Feed, 1; equaled guaranty.

Adairville Milling Co., Adairville, Ky. Inspection sample of Middlings analyzed, 1; sample was low grade flour.

Alfocorn Milling Co., St. Louis, Mo. Inspection samples analyzed, 11.
- Red Dot Scratch Feed, 1; equaled guaranty.
- Red Dot Chick Feed, 1; no millet present.
- Full Pail Dairy Feed, 2; too high in fiber; 1 contained excess oat hulls and ground grain screenings containing weed seeds; no corn gluten feed present.
- High Pull Horse & Mule Feed, 1; rolled oats and ground grain screenings containing weed seeds, added.
- Quick Step Horse & Mule Feed, 1; too high in fiber; oat hulls and ground grain screenings containing weed seeds, added.
- Alfocorn Horse Feed, 1; too low in protein.
- Ambrosia Horse & Mule Feed, 1; equaled guaranty.
- High Kick H & M Feed, 1; too high in fiber and misbranded as to ingredients.
- Hevi-Grain H & M Feed, 1; equaled guaranty.

Alfolas Beet Pulp Mixing Meal, 1; too high in fiber; oat hulls and weed seeds added.

The Allen & Wheeler Co., Troy, Ohio. Inspection samples analyzed, 6.
Trojan Bran, 1; too low in protein.
Trojan Spring Bran, 1; equaled guaranty.
Trojan A-1 Farm Feed, 1; too low in protein.
Trojan Middlings & Screenings, 1; too high in fiber.
Trojan Cracked Corn, 1; equaled guaranty.
Trojan Honey Dew Sweet Feed, 1; equaled guaranty.

American Milling Co., Peoria, Ill. Inspection samples analyzed, 10.
Sucrene Dairy Feed, 3; 1 too low in protein; 2 too high in fiber; 2 misbranded as to ingredients.
American Dairy Ration, 1; equaled guaranty.
Tip Top Sugared Feed, 1; equaled guaranty.
Empire 20% Dairy Feed, 1; ingredients not as guaranteed; misbranded.
Sucrene Horse & Mule Feed, 1; equaled guaranty.
Kick-A-Poo Horse Feed, 1; equaled guaranty.
Tip Top Chick Feed, 1; too low in protein; adulterated and misbranded.
Tip Top Scratch Feed, 1; equaled guaranty.

Anderson & Spilman, Danville, Ky. Inspection sample of Anderson & Spilman Feed analyzed, 1; equaled guaranty.

Ansted & Burk Co., Springfield, O. Inspection samples analyzed, 2.
Wheat Bran & Screenings, 1; equaled guaranty.
Humpty Dumpty Poultry Mash, 1; equaled guaranty.

Arcady Farms Milling Co., Chicago, Ill. Inspection samples analyzed, 4.
Arcady Dairy Feed, 1; too high in fiber and misbranded as to ingredients.
Wonder Dairy Ration, 1; too low in protein and fat and too high in fiber. Misbranded.
Wonder Mash with Buttermilk, 1; equaled guaranty.
Wonder Scratch Grains, 1; ingredients not as guaranteed; misbranded.

Archer-Daniels Midland Co., Minneapolis, Minn. Inspection samples of Old Process Ground Linseed Cake analyzed, 2; 1 equaled guaranty; 1 too low in fat.

Armour Fertilizer Works, Chicago, Ill. Inspection sample of Armour's Meat Meal analyzed, 1; equaled guaranty.

Ashland Milling Co., Ashland, Ky. Inspection samples analyzed, 5.
Dayly Feed, 1; contained excess ground wheat screenings.
Mill Run, 1; equaled guaranty.
Wheat Bran, 1; contained wheat screenings.

Amco Feed, 1; oat product added.
No. 1 Feed, 1; too low in protein.

W. J. Askew & Co., Georgetown, Ky. Inspection sample of Ask-U Dairy Feed analyzed, 1; too low in protein and fat and too high in fiber.

Atlas Milling Co., Milwaukee, Wis. Inspection sample of Atlas Middlings analyzed, 1; not labeled according to law.

Aubrey & Co., Louisville, Ky. Inspection samples analyzed, 16.
Blackhawk Mixed Wheat Feed & Screenings, 1; too low in protein and fat.
Blackhawk Feed & Screenings, 2; 1 too low in protein; 1 contained ground weed seeds.
Red "A" Feed & Screenings, 2; too low in protein and contained weed seeds.
Red "A" Dairy Feed, 2; 1 too low in fat and too high in fiber; inferior products; misbranded.
Monarch Dairy Feed, 1; too low in fat and too high in fiber.
12% Protein Feed, 1; too low in fat and too high in fiber.
Red "A" Horse Feed, 1; too low in protein and fat.
85% Grain Horse Feed, 1; too low in fat.
Dandy Horse Feed, 1; too low in protein and fat; no alfalfa meal present.
Aubrey's Scratch Feed, 4; 2 too low in protein; 3 misbranded as to ingredients.

Aviston Milling Co., Aviston, Ill. Inspection samples analyzed, 3.
Owl Wheat Middlings & Screenings, 1; equaled guaranty.
Pacer Shorts & Screenings, 1; equaled guaranty.
High Grain Horse & Mule Feed, 1; equaled guaranty.

J. J. Badenoch Co., Chicago, Ill. Inspection sample of Honey Bee Dairy Feed analyzed, 1; equaled guaranty.

Ballard & Ballard Co., Louisville, Ky. Inspection samples analyzed, 4.
Ballards' Clover Balance Dairy Feed, 1; equaled guaranty.
Kentucky Farm Feed & Screenings, 1; equaled guaranty.
Red Mule Feed, 1; equaled guaranty.
Insurance Scratch Grains, 1; equaled chemical guaranty but contained only traces of oats, milo and sunflower seed.

Bardstown Milling Co., Bardstown, Ky. Inspection sample of Royal Mash Feed analyzed, 1; equaled guaranty.

Big Diamond Mills Co., Minneapolis, Minn. Inspection samples analyzed, 3.
Big Diamond Wheat Bran & Screenings, 1; not labeled according to law.

Big Diamond Wheat Feed & Screenings, 1; too low in protein and too high in fiber; adulterated with ground weed seeds and ground oat hulls; misbranded.

Big Diamond Wheat Middlings & Screenings, 1; contained ground weed seeds.

Black & White Milling Co., E. St. Louis, Ill. Inspection sample of Black & White Horse Feed analyzed, 1; too low in protein.

Blue Grass-Elmendorf Grain Corporation, Lexington, Ky. Inspection samples analyzed, 2.

"Blue-Elm" Peerless Cow Feed, 1; equaled guaranty.

"Blue-Elm" 41% Cottonseed Meal, 1; equaled guaranty.

F. W. Brode Corporation, Memphis, Tenn. Inspection samples analyzed, 6.

Owl Brand 41% Cottonseed Meal, 4; 1 equaled guaranty; 3 too low in protein; 2 too high in fiber.

Owl Brand 43% Prime Cottonseed Meal, 2; 1 equaled guaranty; 1 too high in fiber.

Chas. Broeker & Co., Owensboro, Ky. Inspection sample of Hominy Feed analyzed, 1; too low in protein.

Burnside Roller Mills, Burnside, Ky. Inspection samples of Mixed Feed analyzed, 2; equaled guaranty.

Cadick Milling Co., Grandview, Ind. Inspection samples of Mixed Wheat Feed analyzed, 2; equaled guaranty.

Cannelton Flour Mills, Cannelton, Ind. Inspection sample of Cracked Corn & Whole Wheat Chicken Feed analyzed, 1; too low in fat.

Cave City Milling Co., Cave City, Ky. Inspection sample of Mixed Feed analyzed, 1; contained wheat screenings.

Cecilian Milling Co., Cecilian, Ky. Inspection samples of Flour Middlings analyzed, 3; 2 too low in protein and fat; 1 too high in fiber.

Cincinnati Grain & Hay Co., Cincinnati, O. Inspection samples analyzed, 9.

"No Better" Horse & Mule Feed, 2; too low in protein; wheat bran present.

"No Better" Sweet Dairy Feed, 1; too low in fat; ingredients not as guaranteed.

"No Better" Egg Mash, 2; too low in protein; ingredients not as guaranteed; misbranded.

"No Better" Hog Ration, 1; too low in protein; too high in fiber; ingredients not as guaranteed; misbranded.

Dried Brewers' Grains, 1; excess fiber.

Hominy Feed, 1; too low in protein and fat.

Wheat Middlings, 1; equaled guaranty.

Clell Coleman & Sons, Burgin, Ky. Inspection sample of Mixed Feed analyzed, 1; too low in protein and fat; screenings present in large amount; misbranded.

R. F. Collier & Co., Paris, Ky. Inspection sample of Bourbon Brand Egg Mash analyzed, 1; ingredients not as guaranteed; misbranded.

Commander Mill Co., Minneapolis, Minn. Inspection samples analyzed, 2.

Commander Wheat Middlings and Screenings, 1; much below guaranty in protein and above in fiber; adulterated with oat by-product; misbranded.

Commander Mixed Wheat Feed and Screenings, 1; much below guaranty in protein and above in fiber; adulterated with oat by-product; misbranded.

The G. E. Conkey Co., Cleveland, O. Inspection samples of Conkey's Buttermilk Meat and Grain Laying Mash analyzed, 2; 1 too low in protein; 1 ingredients not as guaranteed.

Corn Products Refining Co., New York, N. Y. Inspection sample of Diamond Corn Gluten Meal analyzed, 1; equaled guaranty.

The Corno Mills Co., E. St. Louis, Ill. Inspection samples analyzed, 14.

Corno Dairy Feed, 3; equaled guaranty.

Corno Hen Feed, 1; contained weed seeds.

Nutro Hen Feed, 2; 1 equaled guaranty; 1 contained less than 3% of wheat, oats and barley.

Corno Laying Mash, 2; too low in protein; 1 too high in fiber.

Corno Chick Feed, 1; equaled guaranty.

Corno Premium Feed, 1; too high in fiber.

Nutro Dairy Feed, 2; oat by-product in excess of guaranty.

Nutro Sweet Feed, 1; equaled guaranty.

Shamrock Sweet Feed, 1; equaled guaranty.

The Cottonseed Products Co., Louisville, Ky. Inspection samples analyzed, 5.

"Eagle Brand" 41% Cottonseed Meal, 4; 2 too low in protein and too high in fiber; 2 equaled guaranty.

36% Good Cottonseed Feed, 1; equaled guaranty.

Crescent Milling Co., Cynthiana, Ky. Inspection sample of Mixed Feed analyzed, 1; equaled guaranty.

Diamond Mills, Evansville, Ind. Inspection samples analyzed, 3.

Evansville Dairy Feed, 1; too low in fat.

Diamond Cow Feed, 1; too low in fat; oat hulls present.

Red Crown Horse & Mule Feed, 1; equaled guaranty.

Dixie Mills Co., E. St. Louis, Ill. Inspection samples analyzed, 4.
Dixie Horse & Mule Feed, 2; 1 too low in protein.
Dixie Cow Feed, 1; equaled guaranty.
Dixie Chick Mash, 1; equaled guaranty.

C. P. Dodd & Co., Louisville, Ky. Inspection sample of Dodd's Molasses Feed analyzed, 1; too low in protein; did not contain wheat bran.

Dulle Meyer Milling Co., Chamois, Mo. Inspection sample of Red, White & Blue Middlings & Screenings analyzed, 1; equaled guaranty.

Eagle Roller Mills Co., New Ulm, Minn. Inspection samples analyzed, 2.
Eagle Wheat Middlings & Screenings, 1; equaled guaranty.
Eagle Wheat Bran & Screenings, 1; too low in protein and too high in fiber; inferior product.

The Early & Daniel Co., Cincinnati, O. Inspection samples analyzed, 22.
Tuxedo Dairy, 4; 1 too low in fat; 1 too low in protein.
Tuxedo Chop, 3; 2 did not contain barley; 1 did not contain wheat bran.
Tuxedo Egg Mash, 3; 2 too high in fiber.
Cerealia Sweets for the Dairy, 2; equaled guaranty.
Rex Scratch, 1; no oats present.
Tuxedo Hog Ration, 1; no barley or molasses present.
Forage Horse & Mule Feed, 1; too low in protein; only a trace of alfalfa.
Dairy Tuxedo, 1; equaled guaranty.
Tuxedo 41% Cottonseed Meal, 1; equaled guaranty.
Tuxedo Pigeon Feed, 1; only traces of corn, millet and hemp.
Tuxedo Developer, 1; only trace of buckwheat.
Tuxedo Poultry Fattener, 1; no dried buttermilk present.
Tuxedo Buttermilk Starter & Growing Mash, 1; equaled guaranty.
Miami Dairy Feed, 1; contained added buckwheat hulls and corn meal.

The Elite Roller Mills; Elkton, Ky. Inspection samples of Cream Dairy Feed analyzed, 2; too low in protein and too high in fiber, ingredients not as guaranteed; misbranded.

Eminence Milling Co., Eminence, Ky. Inspection sample of Leader Mixed Feed analyzed, 1; too low in protein.

The Evansville Packing Co., Evansville, Ind. Inspection samples of 60% Feeding Tankage analyzed, 3; equaled guaranty.

J. C. Everett & Co., Maysville, Ky. Inspection sample of National Feed analyzed, 1; too low in protein.

The Eversole Co., London, Ky. Inspection sample of Kentucky Pride Hominy Feed analyzed, 1; sample corn feed meal.

Farmers & Merchants Milling Co., Brooksville, Ky. Inspection sample of Mixed Wheat Feed analyzed, 1; equaled guaranty.

Oscar Farmer & Sons, Louisville, Ky. Inspection sample of "We Kno" Wheat Bran analyzed, 1; equaled guaranty.

Farmers Milling Co., Somerset, Ky. Inspection sample of Farmer's Feed analyzed, 1; equaled guaranty.

Ferger Bros., Cincinnati, O. Inspection samples analyzed, 2.
Flour Middlings, 1; not labeled and sold in violation of the law.
Wheat Middlings, 1; too low in protein and too high in fiber: adulterated with wheat bran.

Ferncliff Feed & Grain Co., Louisville, Ky. Inspection samples analyzed, 7.
P. D. Q. Horse & Mule Feed, 3; equaled guaranty.
Cracker Jack Horse & Mule Feed, 1; equaled guaranty.
Butternut Dairy Feed, 1; linseed meal added.
Cracker Jack Special Feed, 1; equaled guaranty.
Ground Rye Feed, 1; equaled guaranty.

Field Packing Co., Owensboro, Ky. Inspection sample of Field's Tankage analyzed, 1; equaled guaranty.

The Fleischmann Co., Cincinnati, O. Inspection sample of Fleischmann's Dried Malt analyzed, 1; equaled guaranty.

Flynn Bros. Grain & Feed Co., St. Louis, Mo. Inspection sample of Wheat Mixed Feed & Screenings analyzed, 1; equaled guaranty.

Franklin Kentucky Mills Co., Franklin, Ky. Inspection sample of Mixed Brans analyzed, 1; too low in protein and too high in fiber; contained added screenings.

Henry Fruechtenicht, Louisville, Ky. Inspection sample of Blue Grass Poultry Feed analyzed, 1; too low in protein and fat; ingredients not as guaranteed; misbranded.

C. R. Garner & Co., Amarillo, Texas. Inspection samples of "Texama Brand" 43% Cottonseed Meal analyzed, 2; too low in protein.

Garrard Mills, Lancaster, Ky. Inspection sample of G. M. Mixed Feed analyzed, 1; equaled guaranty.

Glasgow Milling Co., Glasgow, Ky. Inspection sample of Mixed Wheat Feed analyzed, 1; too low in fat.

Edw. F. Goeke Sons, Evansville, Ind. Inspection samples analyzed, 6.
Big Gee 25% Dairy Feed, 1; equaled guaranty.
Big Gee Scratch Feed, 1; ingredients not as guaranteed.
Big Gee Wheat Middlings and Screenings, 1; adulterated with ground weed seeds, ground wheat bran and ground oats; too low in protein and too high in fiber.
Big Gee Whole Ground Northern White Oats, 1; equaled guaranty.

Standard Horse & Mule Feed, 1; ingredients not as guaranteed; too low in protein.

Superior 20% Dairy Ration, 1; contained added grain screenings.

Goldcamp Mill Co., Ironton, O. Inspection samples analyzed, 2.

Snowflake White Wheat Middlings, 1; equaled guaranty.

Gold Special Horse Feed, 1; equaled guaranty.

Golden Grain Milling Co., E. St. Louis, Ill. Inspection sample of Wonderfat Station Feed analyzed, 1; equaled guaranty.

Grain Belt Mills Co., S. St. Joseph, Mo. Inspection samples analyzed, 3.

Competitor Scratch Grains, 2; ingredients not as guaranteed; misbranded.

Liberty Scratch Feed, 1; ingredients not as guaranteed; misbranded.

Green River Milling Co., Greensburg, Ky. Inspection samples of Wheat Bran analyzed, 2; 1 adulterated with corn bran and screenings and too low in protein.

Greenup Milling Co., Greenup, Ky. Inspection samples of Standard Feed analyzed, 2; 1 contained weed seeds; 1 equaled guaranty.

Hales & Hunter Co., Chicago, Ill. Inspection samples analyzed, 3.

Gold Flake Dairy Feed, 1; too low in protein.

Red Comb Mash Feed (with Dried Buttermilk), 1; equaled guaranty.

King Falfa Horse Feed, 1; too low in protein.

H. T. Halliday Milling Co., Cairo, Ill. Inspection sample of Halliday's Red H Mixed Feed analyzed, 1; equaled guaranty.

Hall Seed Co., Louisville, Ky. Inspection sample of Elk Scratch Feed analyzed, 1; equaled guaranty.

Harlan-Lowe Milling Co., Bardwell, Ky. Inspection samples of "Harlo" Mill Run Feed analyzed, 2; equaled guaranty.

P. H. Harsha Milling Co., Portsmouth, O. Inspection samples analyzed, 10.

Harsha's Magnolia Scratch Feed, 2; ingredients not as guaranteed; misbranded.

Harsha's Magnolia Mixed Feed, 2; 1 contained added screenings; 1 too low in protein and too high in fiber.

Special Dairy Feed, 1; too low in protein and too high in fiber; excess of weed seeds.

Ready Dairy Ration, 1; not labeled according to law.

International Horse Feed, 1; equaled guaranty.

Wheat Middlings, 2; 1 contained ground wheat bran and too high in fiber.

Cracked Corn, 1; too low in protein.

Herbert Hawkins, Paducah, Ky. Inspection sample of Critic Mixed Wheat Feed analyzed, 1; equaled guaranty.

The C. E. Haynes Milling Co., Waverly, O. Inspection sample of Sifted Cracked Corn analyzed, 1; too low in protein and fat.

The Henderson Milling Co., Knoxville, Tenn. Inspection sample of Shield Brand Feed analyzed, 1; adulterated with ground weed seeds.

Herndon-Carter Co., Louisville, Ky. Inspection samples analyzed, 2.
"H. C. Co. Brand" Scratch Feed, 1; oats substituted for barley.
"H. C. Co. Brand" Baby Chick Feed, 1; equaled guaranty.

W. E. Hess & Co., Louisville, Ky. Inspection sample of Golden Dairy Feed analyzed, 1; oat hulls and oat middlings substituted for white oats.

Hinkle Hardware Co., Louisville, Ky. Inspection sample of Mash analyzed, 1; product elevator sweepings.

Hood Feed Co., Chattanooga, Tenn. Inspection sample of Red Circle Brand Fine Feed analyzed, 1; oat hulls in excess, too high in fiber.

Hopkinsville Milling Co., Hopkinsville, Ky. Inspection sample of Middlings & Screenings analyzed, 1; equaled guaranty.

Humphreys-Godwin Co., Memphis, Tenn. Inspection samples analyzed, 4.
Dixie Brand 41% Cottonseed Meal, 3; 2 too low in protein; all too high in fiber.
Danish Brand Cottonseed Feed, 1; equaled guaranty.

Ideal Roller Mills, Falmouth, Ky. Inspection sample of Mixed Wheat Feed analyzed, 1; too low in protein.

Igleheart Bros., Evansville, Ind. Inspection samples of Pure Wheat Shorts and Screenings analyzed, 4; 2 too low in fat.

J. F. Imbs Milling Co., Belleville, Ill. Inspection samples of Wheat Mixed Feed analyzed, 2; 1 too low in protein.

International Milling Co., Minneapolis, Minn. Inspection sample of Black Hawk Wheat Middlings & Screenings analyzed, 1; too low in protein and too high in fiber; contained ground weed seeds.

International Sugar Feed No. 2 Co., Memphis, Tenn. Inspection sample of International Special Dairy Feed analyzed, 1; equaled guaranty.

Jellico Grocery Co., Corbin, Ky. Inspection sample of Daisy Soft Wheat Middlings & Screenings analyzed, 1; too low in protein and fat.

The Jersee Co., Minneapolis, Minn. Inspection sample of Jersee Compound for Poultry Mashes analyzed, 1; contained ground weed seeds.

Jessamine Coal & Feed Supply Co., Nicholasville, Ky. Inspection sample of Jessamine Dairy Feed analyzed, 1; too low in protein and fat.

The E. Kahn's Sons Co., Cincinnati, O. Inspection sample of Kahn's Diamond K. 60% Digester Tankage analyzed, 1; equaled guaranty.

Kansas Flour Mills Co., Kansas City, Mo. Inspection sample of Gray Wheat Shorts & Screenings analyzed, 1; equaled guaranty.

Kasco Mills, Toledo, O. Inspection sample of Beats All Milk Grains analyzed, 1; equaled guaranty.

Keister Milling Co., Huntington, W. Va. Inspection sample of Fancy White Middlings analyzed, 2; 1 too low in protein and fat.

The Kentucky Chemical Manufacturing Co., Covington, Ky. Inspection sample of K-C Special 50% Meat Scraps analyzed, 2; equaled guaranty.

Kentucky Farm Bureau Federation, Louisville, Ky. Inspection samples analyzed, 6.

Farm Bureau Moremilk Dairy Ration 24%, 1; equaled guaranty.

Farm Bureau Fulpail Dairy Ration 20%, 1; equaled guaranty.

Farm Bureau 16½% Dairy Feed, 1; equaled guaranty.

Farm Bureau 85% Grain Horse Feed, 1; equaled guaranty.

Farm Bureau Scratch Feed, 1; ingredients not as guaranteed; misbranded.

Farm Bureau Egg Mash, 1; too low in protein.

Kentucky Feed & Grain Co., Louisville, Ky. Inspection samples analyzed, 40.

Marshall's 24% Dairy Feed, 9; 3 too low in protein.

Kentucky Star Dairy Feed, 6; 1 too low in protein; 3 equaled guaranty; 1 adulterated with flax plant by-product and too high in fiber; 1 adulterated with weed seeds.

Premo Dairy Feed, 4; 3 too low in protein; 1 equaled guaranty: 1 adulterated with flax plant by-product.

Premo Laying Mash, 4; equaled guaranty.

Kentucky Star Horse & Mule Feed, 3; equaled guaranty.

Kentucky Star Scratch Feed, 2; 1 contained no barley; 1 only trace of sunflower seed.

Success Horse & Mule Feed, 2; equaled guaranty.

Marshall's Sheep Feed, 2; 1 cottonseed meal added; 1 contained no rice bran.

Success Middlings, 2; 1 contained weed seeds and too low in protein.

Premo Scratch Feed, 1; ingredients not as guaranteed; misbranded.

Success 24% Dairy Feed, 1; equaled guaranty.

Premo Hog Meal, 1; contained grain screenings; misbranded.

Premo Baby Chick Feed, 1; equaled guaranty.
Premo Mixed Wheat Feed, 1; equaled guaranty.
Premo Growing Mash, 1; too low in protein.

R. U. Kevil & Sons, Princeton, Ky. Inspection sample of Mixed Feed analyzed, 1; equaled guaranty.

F. W. Kibler Milling Co., Mt. Orab, O. Inspection sample of White Middlings analyzed, 1; equaled guaranty.

Burg Kinner, Greenup, Ky. Inspection samples analyzed, 2.
Mixed Wheat Feed & Screenings, 1; equaled guaranty.
Flour Middlings, 1; equaled guaranty.

Kuttawa Milling Co., Kuttawa, Ky. Inspection sample of Mixed Feed analyzed, 1; equaled guaranty.

Lambert Milling Co., Kenova, W. Va. Inspection samples analyzed, 4.
Cracked Corn, 1; sample was feed meal.
Larro, 1; equaled guaranty.
Mixed Wheat Feed & Screenings, 1; contained ground weed seeds.
Justrite Feed, 1; adulterated with large per cent of oat hulls; too low in protein and fat and too high in fiber.
Black Hawk Wheat Middlings & Screenings, 1; too high in fiber and contained weed seeds.

Lancaster Milling Co., Lancaster, Ky. Inspection sample of Mixed Feed analyzed, 1; too low in protein.

The Larrowe Milling Co., Detroit, Mich. Inspection samples of Dried Beet Pulp analyzed, 2; equaled guaranty.

Laswell Milling Co., Brodhead, Ky. Inspection sample of Mixed Feed analyzed, 1; equaled guaranty.

Lawrenceburg Roller Mills Co., Lawrenceburg, Ind. Inspection samples analyzed, 6.
Golden Bull Bran, 2; equaled guaranty.
Golden Bull Wheat Middlings & Screenings, 2; equaled guaranty.
Wheat Middlings & Screenings, 1; equaled guaranty.
Snowflake Middlings & Screenings, 1; contained excess of screenings.

Lewisburg Milling Co., Lewisburg, Ky. Inspection sample of Wheat Bran & Screenings analyzed, 1; too low in fat.

Lexington Roller Mills Co., Lexington, Ky. Inspection samples analyzed, 3.
Thoroughbred Feed, 1; equaled guaranty.
Queen Bess Feed, 1; too high in fiber.
Hen Fruit (Chick Size), 1; too low in protein; no oats nor millet present; contained weed seeds.

London Mill Co., London, O. Inspection sample of Bran and Screenings analyzed, 1; inferior product; much below standard for bran.

Lone Mountain Milling Co., Middlesboro, Ky. Inspection sample of Ideal Cow Feed analyzed, 1; too high in fiber; no corn product present.

Lookout Oil & Refining Co., Chattanooga, Tenn. Inspection samples of 41% Cottonseed Meal analyzed, 2; adulterated with hulls; too low in protein and fat and too high in fiber.

Loudonville Mill & Grain Co., Loudonville, O. Inspection sample of Winter Wheat Middlings analyzed, 1; equaled guaranty.

Louisville Cereal Mill Co., Louisville, Ky. Inspection samples analyzed, 2.

Nonesuch Feed, 1; too low in protein.

Nonesuch Hominy Feed, 1; too low in protein.

Louisville Cotton Oil Co., Louisville, Ky. Inspection samples analyzed, 6.

"Eagle Brand" 41% Choice Cottonseed Meal, 5; 2 equaled guaranty; 2 too low in protein; 2 too high in fiber.

43% Cottonseed Meal, 1; equaled guaranty.

Louisville Feed Mills, Louisville, Ky. Inspection samples analyzed, 2.

Lincoln Dairy Feed, 1; adulterated with flax plant by-product and screenings refuse; too low in protein and too high in fiber.

Lincoln Scratch Feed, 1; ingredients not as guaranteed; misbranded.

Louisville Milling Co., Louisville, Ky. Inspection samples of Sonny South Mixed Wheat Feed & Screenings analyzed, 2; 1 too high in fiber.

L. B. Lovitt & Co., Memphis, Tenn. Inspection samples of Lovitt Brand 41% Cottonseed Meal analyzed, 2; 1 too high in fiber.

Maney Milling Co., Omaha, Nebr. Inspection sample of Gray Shorts analyzed, 1; equaled guaranty.

Marianna Sales Co., Memphis, Tenn. Inspection samples analyzed, 5.

White Mule Brand 41% Cottonseed Meal, 3; 1 too low in protein and too high in fiber.

White Mule Brand 43% Cottonseed Meal, 1; equaled guaranty.

White Mule Brand 36% Cottonseed Feed, 1; equaled guaranty.

Mayfield Milling Co., Mayfield, Ky. Inspection sample of Mixed Feed analyzed, 1; contained excess screenings.

Memphis Cottonseed Products Co., Memphis, Tenn. Inspection sample of Durham 41% analyzed, 1; too high in fiber; dark color.

McKinney Mills, McKinney, Ky. Inspection sample of Mixed Feed analyzed, 1; equaled guaranty.

The McMillen Co., Ft. Wayne, Ind. Inspection sample of Wayne Pig & Hog Meal analyzed, 1; equaled guaranty.

J. S. McMurtry, Elizabethtown, Ky. Inspection sample of Loraine Dairy Feed analyzed, 1; equaled guaranty.

Miami Elevator, Elizabethtown, O. (Early & Daniel Co., Cincinnati, O.) Inspection samples analyzed, 10.

Miami Dairy Feed, 8; 3 equaled guaranty; 4 too low in protein and too high in fiber; 2, adulterated with screenings refuse and weed seeds.

Miami Molasses Feed, 2; equaled guaranty.

Miller-McConnell Grain Co., Kansas City, Kans. Inspection sample of Grade A Scratch Feed analyzed, 1; ingredients not as guaranteed; misbranded.

Milroy Milling Co., Milroy, Ind. Inspection samples analyzed, 5.

Yellow Diamond Cracked Corn, 2; 1 too low in fat; 1 too low in protein—degermed product.

Red Diamond Feed, 1; too low in fat.

Milroy Mixed Wheat Feed & Screenings, 1; equaled guaranty.

Feed Meal, 1; not labeled according to law.

Model Mills, Georgetown, Ky. Inspection sample of Mixed Feed analyzed, 1; contained excess screenings.

Model Roller Milling Co., Smith's Grove, Ky. Inspection sample of Mixed Feed analyzed, 1; too low in fat.

Morganfield Roller Mills, Morganfield, Ky. Inspection samples analyzed, 2.

"White Rose" Mixed Feed, 1; equaled guaranty.

"White Rose" Scratch Feed, 1; ingredients not as guaranteed; misbranded.

Morristown Flour Mills, Morristown, Tenn. Inspection samples analyzed, 5.

Morristown Mixed Feed, 1; equaled guaranty.

Big O Horse Feed, 2; too high in fiber.

Pinnacle Big 4 Horse Feed, 1; equaled guaranty.

Full Value Dairy Feed, 1; too low in protein and too high in fiber; adulterated with flax plant screenings and refuse.

Mountain City Mill Co., Chattanooga, Tenn. Inspection samples of Blue Cow Fine Feed analyzed, 3; 2 equaled guaranty; 1 too low in protein and contained screenings.

Mystic Mills, Sioux City, Ia. Inspection sample of Sioux Chick Feed analyzed, 1; ingredients not as guaranteed.

National Cottonseed Products Corporation, Memphis, Tenn. Inspection sample of Planet Brand 43% Cottonseed Meal analyzed, 1; equaled guaranty.

New Concord Milling Co., Murray, Ky. Inspection sample of Corn Chop analyzed, 1; equaled guaranty.

The Newsome Feed & Grain Co., Pittsburg, Pa. Inspection sample of Palmo Midds analyzed, 1; too low in protein; contained oat by-product.

Nicholson Mills, Henderson, Ky. Inspection samples analyzed, 3.
Famous Crushed Feed, 1; too low in protein.
Vita-Pure Stock Feed, 1; too low in protein; inferior to guaranty.
Vita-Pure 14% Dairy Feed, 1; too low in protein.

Nolin Milling Co., Nolin, Ky. Inspection sample of Shipstuff analyzed, 1; too low in fat.

Northern Illinois Cereal Co., Lockport, Ill. Inspection sample of Gold Medal Scratch Grains analyzed, 1; ingredients not as guaranteed; misbranded.

The Northwestern Elevator & Milling Co., Mt. Vernon, O. Inspection sample of Taylor's Wheat Bran analyzed, 1; too low in protein.

W. C. Nothern, Memphis, Tenn. Inspection samples analyzed, 3.
Bee Brand 41% Cottonseed Meal, 2; equaled guaranty.
Queen Bee Brand 43% Cottonseed Meal, 1; too low in protein.

Nowak Milling Corporation, Hammond, Ind. Inspection samples analyzed, 5.
Wheat Middlings & Screenings, 2; 1 too low in protein; 2 too high in fiber; 2 adulterated with ground wheat bran.
Domino Union Dairy Feed, 1; ingredients not as guaranteed.
Fidelity Dairy Feed, 1; too low in protein.
Domino Butterine Dairy Feed, 1; equaled guaranty.

Owensboro Milling Co., Owensboro, Ky. Inspection samples analyzed, 5.
D-H Stock Feed, 1; too high in fiber.
Barnyard Hen Scratch (With Grit), 1; too low in protein.
Mixed Wheat Feed, 1; too low in protein.
Barnyard Hen Scratch Feed, 1; only trace of sunflower seed.
Omilco Hen Scratch, 1; ingredients not as guaranteed.

Paducah Milling Co., Paducah, Ky. Inspection samples analyzed, 2.
Laying Mash, 1; too high in fiber.
Dairy Feed, 1; too high in fiber.

Paris Milling Co., Paris, Ky. Inspection sample of Mixed Feed analyzed, 1; too low in protein and fat.

Park & Pollard Co., Chicago, Ill. Inspection samples analyzed, 4.
Lay or Bust Dry Mash, 1; too low in protein and too high in fiber.
Growing Feed, 1; ingredients not as guaranteed.
Wizard Universal Ration, 1; ingredients not as guaranteed; too low in protein.
Wizard Scratch Feed, 1; inferior wheat used; ingredients not as guaranteed; misbranded.

Peoples Roller Mills Co., Georgetown, Ky. Inspection sample of Mill Feed analyzed, 1; equaled guaranty.

Pembroke Milling Co., Pembroke, Ky. Inspection sample of Mixed Feed analyzed, 1; equaled guaranty.

The Perin-Brouse-Skidmore Grain & Milling Co., Cincinnati, O. Inspection sample of Sugar Jack Dairy Feed analyzed, 1; equaled guaranty.

Philpot Mills, Philpot, Ky. Inspection sample of Mixed Feed analyzed, 1; equaled guaranty.

Phoenix Cotton Oil Co., Dyersburg, Tenn. Inspection samples of Phoenix Choice Grade 41% Cottonseed Meal analyzed, 2; 1 too high in fiber.

Pillsbury Flour Mills Co., Minneapolis, Minn. Inspection samples of Pillsbury's Dairy Ration analyzed, 2; 1 too low in protein.

R. C. Poage Milling Co., Ashland, Ky. Inspection sample of Feed Meal analyzed, 1; too low in protein and fat.

Polo Mills Co., E. St. Louis. Ill. Inspection sample of Diamond Dairy Feed analyzed, 1; ingredients not as guaranteed.

Porter Provision Co., Bowling Green, Ky. Inspection sample of Rico Tankage analyzed, 1; too low in fat.

R. L. Potts & Son, White's Station, Ky. Inspection sample of Potts' Reground Mixed Feed analyzed, 1; too low in protein and too high in fiber; contained excess of corn bran.

Pratt Food Co., Philadelphia, Pa. Inspection samples analyzed, 8.
- Pratt's Victory Dairy Ration, 2; equaled guaranty.
- Pratt's Victory Laying Mash with Buttermilk, 2; ingredients not as guaranteed.
- Pratt's "Circle A" Scratch, 2; ingredients not as guaranteed.
- Pratts Supreme Growing Mash with Buttermilk, 1; equaled guaranty.
- Pratts Victory Scratch Feed, 1; no sunflower seed present.

The Quaker Oats Co., Chicago, Ill. Inspection samples analyzed, 6.
- Buckeye Feed, 2; 1 contained excess screenings and weed seeds.
- Early Bird Scratch Grains (No Grit), 1; ingredients not as guaranteed; misbranded.
- Ful-O-Pep Egg Mash, 1; equaled guaranty.
- Schumacher Feed, 1; only trace of cottonseed meal and oil meal.
- Sugared Schumacher Feed, 1; equaled guaranty.

Ralston Purina Co., St. Louis, Mo. Inspection samples analyzed, 15.
- Purina Cow Chow, 3; equaled guaranty.
- Purina Hen Chow Feed, 2; equaled guaranty.
- Purina Bulky Las Feed, 2; ingredients not as guaranteed; misbranded.
- Purina Chicken Fatena Feed, 1; equaled guaranty.

Purina O-Molene Feed, 1; equaled guaranty.
Purina Chicken Chowder Feed (with Charcoal), 1; equaled guaranty.
Purina Steer Fatena Feed (with Charcoal), 1; too high in fiber; contained excess weed seeds.
Purina Calf Chow Feed, 1; equaled guaranty.
Purina Chick Startena with Buttermilk, 1; equaled guaranty.
Purina Chicken Fat Chow Feed, 1; corn germ meal not present.
XX Good Feed with Molasses, 1; equaled guaranty.

Randolph Milling Co., Bandana, Ky. Inspection sample of O-Joy analyzed, 1; equaled guaranty.

M. G. Rankin & Co., Milwaukee, Wis. Inspection samples analyzed, 3.
Rankin's Standard Feed, 2; contained ground weed seeds.
Rankin's Fancy Feed, 1; too high in fiber; contained excess weed seeds.

Rapier Sugar Feed Co., Owensboro, Ky. Inspection samples analyzed, 20.
Rapier's Creamo Dairy Feed, 3; equaled guaranty.
Rapier's Blue Hen Scratch Feed (with Grit), 2; too low in protein; ingredients not as guaranteed; misbranded.
Rapier's Blue Hen Scratch Feed (no Grit), 1; too low in protein.
Rapier's Blue Hen Laying Mash, 1; too high in fiber.
Rapier's Otene Horse & Mule Feed, 3; 1 too low in protein; 2 too high in fiber; 2 contained excess oat hulls.
Rapier's Big Four Horse & Mule Feed, 3; too low in protein.
Rapier's Red Wing Horse & Mule Feed, 1; equaled guaranty.
Rapier's Teamster Horse & Mule Feed, 1; equaled guaranty.
Rapier's Golden Rod Dairy Feed, 3; 1 equaled guaranty; 2 ingredients not as guaranteed.
Rapier's Pig Meal, 1; too high in fiber; ingredients not as guaranteed; excess of weed seeds.
41% Cottonseed Meal, 1; too low in protein and fat; too high in fiber.

Read Phosphate Co., New Albany, Ind. Inspection sample of Read's "Red Diamond" 60% Digester Tankage, 1; too low in protein.

Ritter-Hennings Co., Louisville, Ky. Inspection sample of "Shur Pleez" Pigeon Feed analyzed, 1; too low in protein, ingredients not as guaranteed; misbranded.

Riverside Mills, Adairville, Ky. Inspection samples of Mixed Feed analyzed, 2; equaled guaranty.

Roberts Cotton Oil Mill, Cairo, Ill. Inspection samples of Diamond R. 43% Cottonseed Meal analyzed, 2; much too low in protein.

Roosevelt Mills, Chicago, Ill. Inspection sample of Wizard Dairy Feed analyzed, 1; too low in protein and too high in fiber.

Ross Seed Co., Louisville, Ky. Inspection sample of "May Bell" Dairy Feed analyzed, 1; adulterated with flax plant by-product and grain screenings; misbranded.

Ross & Zeitz Co., Louisville, Ky. Inspection samples analyzed, 2.
Perfection Horse & Mule Feed, 1; equaled guaranty.
Dandy Horse & Mule Feed, 1; equaled guaranty.

Rudy-Patrick Seed Co., Kansas City, Mo. Inspection sample of Everyday Scratch Feed analyzed, 1; ingredients not as guaranteed.

Salt Lick Roller Mills, Salt Lick, Ky. Inspection sample of Mixed Feed analyzed, 1; too low in protein.

Schultz-Baujan & Co., Beardstown, Ill. Inspection sample of Mixed Wheat Feed & Screenings analyzed, 1; equaled guaranty.

Security Mills, Knoxville, Tenn. Inspection samples analyzed, 4.
Big S. Horse Feed, 2; equaled guaranty.
Victor Scratch Feed, 1; too low in protein.
Security Chick Starter, 1; equaled guaranty.

The Setser Feed Store, Catlettsburg, Ky. Inspection sample of Setser's Feed analyzed, 1; not labeled according to law; inferior product.

The Shredded Wheat Co., Niagara Falls, N. Y. Inspection samples of Shredded Wheat Waste analyzed, 2; equaled guaranty.

Simmons Milling Co., Cincinnati, O. Inspection samples analyzed, 3.
Decko Poultry Fattening Feed, 2; equaled guaranty.
Simco Buttermilk Egg Mash, 1; equaled guaranty.

W. T. Sistrunk & Co., Lexington, Ky. Inspection sample of Sisco Sugar Dairy analyzed, 1; equaled guaranty.

J. Allen Smith & Co., Knoxville, Tenn. Inspection sample of Peerless analyzed, 1; equaled guaranty.

Southern Feed & Grain Co., Louisville, Ky. Inspection samples analyzed, 11.
Sugar Dairy Feed, 3; too high in fiber; 1 too low in protein and fat; 2 contained no wheat middlings; 1 had cottonseed hulls substituted for flax plant by-product.
Standard Dairy Feed, 2; equaled guaranty.
Atlas Dairy Feed, 1; contained excess weed seeds.
Eagle Horse & Mule Feed, 1; equaled guaranty.
Diamond "S" Scratch Feed, 2; too low in protein; ingredients not as guaranteed.
Atlas Cotton Seed Feed, 1; equaled guaranty.
Diamond Wheat Feed & Screenings, 1; too low in protein and adulterated with ground weed seeds.

Sparks Milling Co., Alton, Ill. Inspection samples of Try Me Mixed Wheat Feed & Screenings analyzed, 2; equaled guaranty.

Stanard-Tilton Milling Co., Alton, Ill. Inspection sample of American Beauty Wheat Middlings & Screenings analyzed, 1; equaled guaranty.

Jesse C. Stewart Co., Pittsburg, Pa. Inspection sample of Big Diamond analyzed, 1; equaled guaranty.

The Sugarine Co., Owensboro, Ky. Inspection samples analyzed, 22.
The National Dairy Ration, 7; 5 equaled guaranty; 2 corn feed meal substituted for hominy feed.
Sugarine Dairy Feed, 5; equaled guaranty.
Record Dairy Feed, 1; equaled guaranty.
Ideal Sugared Feed, 2; equaled guaranty.
Sugarine Hog Meal, 1; too high in fiber.
Record Scratch Feed, 3; 2 contained only traces of sunflower seed; 1 misbranded as to ingredients.
Ideal Scratch Feed, 1; misbranded as to ingredients.
Record Chick Feed, 1; too low in protein; contained only a trace of oat groats and millet.
Cottonseed Meal, 1; equaled guaranty.

Sunnyside Milling Co., Evansville, Ind. Inspection sample of Winter Wheat Shorts & Screenings analyzed, 1; equaled guaranty.

Superior Milling Co., Harriman, Tenn. Inspection sample of Superior Mixed Feed analyzed, 1; too low in protein and too high in fiber; much inferior to guaranty.

Sutherland Flour Mills Co., Cairo, Ill. Inspection samples analyzed, 2.
Daisy Feed, 1; too high in fiber.
Sutherland's Dairy Ration, 1; too low in fat.

Swift & Co., Chicago, Ill. Inspection sample of 60% Digester Tankage analyzed, 1; equaled guaranty.

R. D. Taylor Feed & Supply Co., Ashland, Ky. Inspection sample of Taylor's Standard Feed analyzed, 1; equaled guaranty.

Tell City Flouring Mills, Tell City, Ind. Inspection sample of "A-Mixed Feed" analyzed, 1; too low in protein.

Adam Tempel & Son, Maxon Mills, Ky. Inspection sample of Bran & Shipstuff analyzed, 1; too low in protein and too high in fiber; contained oat hulls and corn by-product.

Three Minute Cereals Co. (Corno Mills Co.) Cedar Rapids, Ia. Inspection samples analyzed, 2.
Corno Hygrade Oat By-Product Feed, 1; equaled guaranty.
Corno Reground Oat Hulls, 1; equaled guaranty.

Trenton Cotton Oil Co., Trenton, Tenn. Inspection sample of Trenton Brand 41% Cottonseed Meal analyzed, 1; too low in protein.

Ubiko Milling Co., Cincinnati, O. Inspection samples analyzed, 5.
"Union Grains" Ubiko Biles Ready Dairy Ration, 3; 1 too low in protein.

Fourex Dairy Ration, 1; equaled guaranty.
Ubiko Egg Mash with Buttermilk, 1; equaled guaranty.

United Mills Corporation, Grafton, O. Inspection samples analyzed, 3.
Grafton Mixed Wheat Feed & Screenings, 2; 1 too low in protein and contained weed seeds.
Perfection Middlings, 1; equaled guaranty.

Valier & Spies Milling Co., St. Louis, Mo. Inspection sample of Grey Middlings & Screenings analyzed, 1; equaled guaranty.

Vanhoose-Maggard Co., Ashland, Ky. Inspection samples of Yellow Diamond Dairy Feed analyzed, 3; 1 too low in protein and adulterated with cottonseed hulls; 2 contained excess weed seeds.

Van Meter & Terrell Feed Co., Lexington, Ky. Inspection sample of Hen's Delight Scratch Feed analyzed, 1; rye present though not guaranteed.

Washburn Crosby Co., Minneapolis, Minn. Inspection samples analyzed, 2.
Gold Medal Wheat Middlings & Screenings, 1; too high in fiber; contained weed seeds and oat hulls.
North Star Scratch Feed, 1; equaled guaranty.

Washington Milling Co., Washington, C. H., O. Inspection samples of Wheat Middlings analyzed, 2; equaled guaranty.

Alva West & Co., Maysville, Ky. Inspection sample of Mixed Feed analyzed, 1; too low in protein and contained excess of grain screenings.

Western Feed Manufacturers, Inc., Chicago, Ill. Inspection samples analyzed, 2.
Sure Pay Scratch Feed, 1; ingredients not as guaranteed; large per cent of weed seeds present.
Full of Grain Horse & Mule Feed, 1; equaled guaranty.

A. P. White & Co., Cadiz, Ky. Inspection sample of Superior Poultry Feed analyzed, 1; too low in fat; contained inferior wheat and cheat.

Whitley Grocery Co., Corbin, Ky. Inspection samples analyzed, 2.
Lucky Wheat Mixed Feed & Screenings analyzed, 1; contained excess wheat screenings and weed seeds.
Lucky Middlings, 1; too low in protein and too high in fiber.

Winchester Roller Mills, Winchester, Ky. Inspection samples analyzed, 11.
Mixed Feed, 6; 2 equaled guaranty; 4 too low in protein; 1 contained excess wheat screenings; 1 contained excess corn bran.
O-Kay Dairy Feed, 2; ingredients not as guaranteed; misbranded.
Perfection Dairy Feed, 1; ingredients not as guaranteed; misbranded.

Perfection Egg Mash, 1; too low in fat; ingredients not as guaranteed.

Perfection Scratch Feed, 1; equaled guaranty.

J. F. Wolcott & Co., S. Carrollton, Ky. Inspection sample of Wolcott's Feed analyzed, 1; too low in protein; no rye present.

Woodstock Mills, Seymour, Ind. Inspection sample of Woodstock Coarse Scratch Feed "B" analyzed, 1; too low in fat; ingredients not as guaranteed.

Wood, Stubbs & Co., Louisville, Ky. Inspection sample of 200-Egg Scratch analyzed, 1; contained only a trace of sunflower seed.

Woolcott Flour Mills, Lexington, Ky. Inspection samples analyzed, 5.

Woolcott's Mixed Feed, 2; equaled guaranty.

Alpine Horse & Mule Feed, 1; too low in protein; contained only a trace of alfalfa meal and excess of oat hulls.

Yellow Diamond Dairy Feed, 1; too low in fat; ingredients not as guaranteed; misbranded.

Pride of Kentucky Dairy Feed, 1; equaled guaranty.

Young & Bishop, Providence, Ky. Inspection sample of Mixed Feed analyzed, 1; too high in fiber.

Zabel Milling Co., New Albany, Ind. Inspection sample of Mixed Wheat Feed & Screenings analyzed, 1; too low in protein and too high in fiber.

J. W. Zaring Grain & Mill Co., Richmond, Ky. Inspection sample of Bonanza analyzed, 1; too low in protein.

Zeisler Grain Co., Lucasville, O. Inspection sample of Middlings analyzed, 1; not labeled according to law; adulterated with large per cent of corn by-product.

Ziliak & Schafer Milling Co., Evansville, Ind. Inspection samples analyzed, 2.

Elite Egg Mash, 1; equaled guaranty.

Imperial Scratch Feed, 1; ingredients not as guaranteed; misbranded.